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ABSTRACT OF DISCLOSURE

5 A bar code symbol reading system is disclosed comprising a
hand-supportable bar code symbol reading device which embodies an
electronically-controlled bar code symbol reading engine for producing a
raster-type laser scanning pattern in either a hands-free or hands-on mode of
operation for scanning 1-D and 2D bar code symbols. The electronically-
controlled bar code symbol reading engine has (i) a high-speed/high-resolution
10 raster scanning mode of operation, during which a high-speed, high-resolution
raster-type scanning pattern is precisely generated under electronic control,
and (ii) a high-speed/low-resolution raster scanning mode of operation during
which a high-speed, low-resolution raster-type scanning pattern is precisely
generated under electronic control. The electronically-controlled bar code
symbol reading engine is induced into its high-speed/high-resolution raster
15 scanning mode of operation when the hand-supportable bar code symbol
reading device is removed from its support stand, and into its high-speed/low-
resolution raster scanning mode when the hand-supportable bar code symbol
reading device is placed into its support stand. The bar code symbol reading
engine comprises a pair of mechanically-damped off-resonant laser beam
20 scanning mechanisms that are arranged on a miniature optical bench and
electronically-controlled by either a synchronously or asynchronously driven
drive circuit. When asynchronously driven, the raster laser scanning pattern
floats slightly along the y-scanning direction to facilitate reading of 2-D bar
code symbols during the hands-on mode of operation.

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